2.11.2 Physical Resources

2.11.2 The institution has adequate physical resources to support the mission of the institution and the scope of its programs and services.

Judgment of Compliance

In Compliance

Narrative

Overview

The University of Alabama ensures it has adequate physical resources, both on-campus and off-campus, to support the mission of the institution and scope of its programs and services. This is accomplished through the use of the following framework:

- Comprehensive Campus Master Plan that links to the University’s Mission and Strategic Goals
- Campus Design Guide (Serves as Extension of Campus Master Plan)
- Collaboration between key University divisions
- Input from facilities’ users and planned users
- Structured, integrated, and continuous strategic planning
- University policies and Design Guidelines (Serves as Guidance to Architects and Other Professionals)
- Board of Trustees’ oversight
- External resource assessment including other accrediting agencies
- Distance Learning.

The University of Alabama campus is located in Tuscaloosa, Alabama and serves more than 34,800 students. The University’s total land holdings equates to approximately 1,026 acres and includes 300 buildings containing more than 14 million gross square feet of space (GSF). Another 27,313.43 acres of land, originating from the 1884 Federal Land Grant, valued at $10.2 million in 1915, is in an endowment for the University with the funds split between the University’s Federal Land Grant Endowment Fund ($6 million) and its Quasi Federal Land Grant Endowment Fund ($4.2 million). All earnings from both funds must be allocated for current UA operations in accordance with Board of Trustees Rule 412 [1]. Market values as of September 30, 2013 are: Federal Land Grant Endowment Fund-$155,525,378 and Quasi Federal Land Grant Endowment Fund-$11,151,360. Additional detail about these funds is provided [2].
There are a total of 249 buildings located at UA's main campus with 14,155,297 square feet in classroom space, research facilities, student residential halls, libraries, administrative buildings, medical clinics, athletic facilities, recreational facilities, and other facilities. Currently there are 44 residence halls with approximately 8,562 beds, which are sufficient to provide accommodations for all freshmen as per the University’s residency requirement. In addition, 24 fraternity and 17 sorority houses are located (and currently occupied) on campus and provide a total of approximately 1,583 beds. Off-campus facilities include 58 buildings and represent a total of 252,412 GSF of space. The enclosed building inventory [3] lists the on and off campus buildings and also includes the principal usage, age, replacement value, gross square footage, and type of construction. In addition, the University leases off-campus space from various entities for storage, housing for visiting faculty, art gallery and studio purposes, and classroom activities. A summary of the University’s leases is provided. [4] A campus map [5] and a Web tour of the campus facilities [6] provide an overview of the campus.

Other Course Delivery Locations

There are three course delivery locations outside of the main campus affiliated with the University’s College of Continuing Studies. These sites are located in Birmingham, Florence and Gadsden, Alabama. Also, one course is routinely delivered each year at the Moundville Archaeological Park, located approximately 14 miles south of the main campus and at the Kentuck Art Center, located in Northport, Alabama.

Birmingham: The Library Information Study (LIS) graduate-level courses offered in Birmingham, Alabama are based on student demand and are facilitated through an arrangement with Samford University. The classroom is located in the Main Library on the Samford campus. Samford provides the appropriate classroom space and technology, including Internet access, for the courses. Pictures of the classroom space used for the LIS graduate courses are provided. [7] [8]

Florence: The Doctorate of Education Program delivered in cooperation with the University of North Alabama (UNA) in Florence, Alabama emphasizes the application of theory and research to the practice of leadership in P–12 schools and other educational policy arenas. The program consists of 72 credit hours beyond the master’s degree. In addition to core courses, students complete 12 credit hours in the area of research, up to 12 credit hours in the social foundations of education, and 12 credit hours of dissertation research. Classes are scheduled in newly renovated classrooms located in Stevens Hall. Classrooms are designated as Smart classrooms and are equipped with the latest generation desktop computer with Internet access, a video/data projector, VHS/DVD players, sounds system for video and personal computer, and a digital document camera. University of Alabama faculty and students involved in classes offered on the UNA campus are assigned a UNA login and have access to all available technology and benefit from the support of the UNA Computer Services Department and Educational Technology Services. In addition, Wi-Fi Internet access is available campus-wide. Additional information about the program may be found at Doctor of Education (UNA Campus). [9] Pictures of the classroom space for this program are provided. [10] [11]

Gadsden: Established in 1946, the Gadsden Center [12] is located in Gadsden, Alabama. The Center serves North Alabama, Northwest Georgia, and Southeast Tennessee and offers graduate coursework for credit, noncredit programs for professional development, community development programs, and test services and serves as a liaison to the University’s main campus. Currently the Center offers 13 complete degrees in education with classes offered on nights, weekends, and in Web-assisted formats to accommodate working professionals. The University leases the space for the facility from the City of Gadsden. The City of Gadsden is responsible for all major maintenance and repairs related to the leased premises including the parking lot. The University is responsible for minor maintenance and repairs and those are contracted out to a third-party. Gadsden Center is handicap accessible, with a total of 25,980 GSF and 14,996 of net assignable square footage. The average seating capacity for classes is 26 with the largest accommodating 46 and the smallest seating 10. Gadsden is a member of the University of Alabama System’s Intercampus Interactive Telepresence System (IITS). [13] a statewide videoconferencing network. IITS connects users to in-state, national, and international conferencing; course instruction; research endeavors; and meeting participation. The Center has two video conferencing classrooms, one mobile unit for video conferences, one mobile science lab, three computer labs, one mobile laptop lab, wireless capability, and uses the latest Windows operating system and Microsoft Office software. The Gadsden Center is administratively housed within the University’s College of Continuing Studies. Additional explanation about the Gadsden Center facility, its course offerings, and a copy of the lease agreement are provided [14]
Moundville Archaeological Park [15] is part of The University of Alabama Museums [16]. The Alabama Museum of Natural History sold this property to the University in March 1963. The 320-acre park with 28 large earthen mounds borders the Black Warrior River and is considered one of the most significant archaeological sites in the United States. The University also uses the site to deliver the undergraduate course, Anthropology 269 - Field Archaeology, as well as an excavation resource to further graduate studies within the Department of Anthropology. As the University’s FY 2013 Work Order History Report (referenced later in this narrative) demonstrates, the University serves the facilities and grounds maintenance needs for this site. Additionally, in 2010, renovation and expansion of the Jones Archaeological Museum at Moundville was completed. This project served to enhance the museum by modernizing and expanding the facility as well as updating the displays. Projects to refurbish the bath house and campground parking were also completed to facilitate and improve the visiting experience.

The Kentuck Art Center, located in Northport, Alabama is leased space used by the University to deliver the undergraduate course, NEW 473-Social Science II: Globalization, and for kiln space. The University leases the space as is from the Kentuck Museum Association, Inc. The rental fee includes water and incidental use of electricity. In addition to rent, the University pays an electricity fee of $35 for each kiln firing and covers cost of materials used. The University is also required to reimburse the Kentuck Museum Association for any costs associated with cleaning and repairing the premises following its use of the space. A copy of the lease is provided [17].

### Enrollment and Gross Square Footage

Enrollment at The University of Alabama reached a record high of 34,852 students in the fall 2013, which represents an increase of 7,800 students or 28.8% over the past five-year period as depicted in the table below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Base Year Fall 2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Total Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment % Annual Change</td>
<td>27,052</td>
<td>28,807</td>
<td>30,232</td>
<td>31,747</td>
<td>33,602</td>
<td>34,852</td>
<td>7,800</td>
</tr>
<tr>
<td>% Annual Change</td>
<td>6.5%</td>
<td>4.9%</td>
<td>5.0%</td>
<td>5.8%</td>
<td>3.7%</td>
<td>28.8%</td>
<td></td>
</tr>
</tbody>
</table>

Consequently, the University’s gross square footage increased by approximately 2.3 million gross square feet or 18.23% as illustrated in this table [18].

In FY 2010, the University had 427.86 GSF of space per student headcount. Currently, the GSF per student headcount is 418.13. Obviously the enrollment growth has outpaced the facilities growth, which is to be expected in regard to the time requirements for planning and constructing a building. However, the University has methodically followed a structured plan to adapt its space to respond to the University’s enrollment growth needs. The University elected to first address ensuring adequate student residential facilities as demonstrated by the 20.7% increase in student housing gross square footage. As the University’s Campus Master Plan (next section in narrative) illustrates, it was determined that new academic growth would be accommodated primarily through renovation of existing academic buildings and adaptive use and expansion of other existing facilities. Consequently, during the same five-year period as noted above, the University removed numerous buildings and structures from the campus inventory which were prohibitively expensive to renovate or on land required for new and more efficient development. A total of 64 structures were removed for a total of 1,042,727 GSF. As a result of the renovations and new construction, the campus has a younger age profile over its peers [19].

Evidence to support the University’s effort to respond to enrollment growth can be demonstrated within classroom and class lab utilization reports [20]. As the enclosed utilization report demonstrates, all measurements, with the exception of the average station occupancy ratio, increased since fall 2009. These increases can be credited to more effective course scheduling systems and processes (explained later in the narrative) and the concerted emphasis the University has made on incorporating end user feedback in the planning and development (programming) phases related to new construction and renovation of its classroom facilities (also detailed later in the narrative). Important points regarding the measurements noted within the report:

- The number of seats added on a per classroom basis varies in ranges of 50–76 (9 classrooms), 75–100 (9 classrooms), and greater than 100 (7 classrooms).
• Classrooms with 50 stations or more comprise approximately one-third of the classrooms and two-thirds of the weekly student hours.

• The majority of weekly student hours (65% as of fall 2013) are held in classrooms with 50 or more seats. As a result, the University still has capacity to satisfy academic programmatic needs by utilizing the classrooms with fewer than 50 seats if necessary.

• Factors that impact usage of classrooms with fewer than 50 seats may include restrictions on the number of students accepted for some classes, student preferences in scheduling courses, and meeting patterns.

Two important factors impacting the average class lab station occupancy ratio:

1. Noted changes in class lab usage are applicable to the Math lab in Tutwiler Hall and an Engineering Lab in Paty Hall. The University’s largest class lab (237 seats) is the Math Lab. In 2009, it was at 5% of the total student hours; since then, usage has grown to 10 –12%. While the Engineering Lab (155 seats) total hours usage is currently at 7%, in 2009 it accounted for 12 to 13% of total student hours. These two labs account for 17 to 25% of all student hours.

2. Within the past 5 years, the Science and Engineering Complex, the South Engineering Research Center, and the North Engineering Research Center have been added to the class lab inventory (26 labs being utilized).

Campus Master Plan and Design Guide

The University’s mission is to advance the intellectual and social condition of the people of the state, nation, and the world through the creation, translation, and dissemination of knowledge with an emphasis on quality programs of teaching, research, and service. The purpose of the Campus Master Plan is to create a complete learning environment with the core of the campus for learning and for selected supporting spaces and services essential to learning. The surroundings of the core (to the north and south of the academic campus area) are for student residences and student life activities. The Plan establishes direction for accommodating planned growth and serves as a guide for infrastructure development and capital improvements.

Development of the Campus Master Plan was a collaborative, comprehensive effort completed in 2007, and amended and updated in November 2012 to incorporate the University’s 2010 purchase of 168 acres of adjoining property (Bryce Hospital). The Plan is designed to help realize one of the University’s four strategic goals - enhancing the University’s learning environment to attract and retain excellent students and is based on guiding principles adopted by the Board of Trustees in 2007, with the first principle stipulating that the primary purpose of the campus is to provide appropriate settings to fulfill the University’s mission of teaching, research, and service.

The Plan was developed with broad participation from campus constituents, including its administration, faculty, staff, students and alumni. Constituent participation was in the form of interviews, surveys, focus group sessions, and committees. As an example, an online survey was generated early in calendar year 2011 to determine what a variety of people thought about the campus at present, i.e. at the time of the survey, issues they felt would be faced by the University over the next five-year period, and what they thought were the most important features of the UA campus that should be addressed by the master planning process. The results of the online survey are provided, along with a copy of an accompanying presentation.

As a result of this input, the completed plan is considered an endorsement measure by campus constituencies that the institution’s current and planned facilities are adequate to meet the needs of its mission-related activities.

While extending the philosophy and value system of the University’s 2007 Campus Master Plan, the primary purpose of the 2012 update to the Plan was to incorporate the University’s 2010 purchase of 168 acres of adjoining property (Bryce Hospital), amend the plan to include the sorority expansion master plan, and proactively address the campus needs of a planned student enrollment of 35,000 as well as being responsive to the faculty and staff required to support those needs. The Plan resolves issues of access, wayfinding and circulation, architecture, landscape, utilities, and service, security and the health of the natural environment balanced in a way that continues to support the realization of the University’s mission. This is achieved by the planned maintenance and enhancement of key structures, extension and replacement of infrastructure; and, as a result of the expanded campus, opportunities for infill of new buildings to serve the growing population.
More explicitly, the Plan asserts the following:

- New academic growth will be accommodated primarily through renovation of existing academic buildings and adaptive use and expansion of other existing facilities.
- Development of on-campus housing will occur through expansion into previously underdeveloped portions of the campus and through infill and replacement of existing residential areas.
- Surface parking will be shifted from interior of campus to perimeter locations, to encourage and support walking, bicycling, and use of the campus transit system, thereby freeing up valuable core location space for academic and residential facilities.

Ongoing efforts to ensure that the Master Plan continues to meet the needs of the campus constituents involve convening standing Campus Master Plan Committee [24] meetings. Examples of meeting minutes are provided. [25] Any activities that may necessitate an update to the Master Plan will originate through these channels and ultimately be submitted for Board approval as per Board Rule 415, Section III. A. [26] Documentation to support Board of Trustee’s approvals for the initial plan, five-year review and update, and the amendment to the Plan are provided. [27] [28] University Planning and Design is responsible for the collaborative planning for the present and future physical campus needs of the University. The department maintains and updates the University’s Campus Master Plan.

The Campus Design Guide [29] serves as an extension of the Campus Master Plan and establishes measureable strategies and specific standards for development and redevelopment on campus. The Design Guide also outlines the process by which University projects are to be designed, reviewed and approved.

**Collaboration between University Divisions and Input from Facilities’ Users**

Within the Division of Financial Affairs, University Planning, [30] Construction Administration, [31] and Facilities and Grounds Operations [32] are responsible for planning, developing, constructing, managing, and maintaining the campus’ facilities and grounds. Administrative Services [33] is responsible for the collection of data for the development of space utilization, building inventory, and space data reports. However, these functions and related decisions are predicated based on determination of need, strategic input and analysis, and ongoing monitoring from areas outside the Division of Financial Affairs, including the Division of Student Affairs [34] (including Housing and Residential Communities), [35] the Office for Academic Affairs [36] (including the Office of the University Registrar) [37] with the Provost’s Office specifically overseeing assignment of general classroom space and determining the adequacy of such space to meet the academic needs of each college.

Each of the areas referenced have professionals, systems, policies, procedures, practices and reports in place to accomplish respective University divisional and departmental missions. However, it is the collective culmination of these groups’ efforts, along with the infrastructure described in this narrative, that are utilized daily in supporting the University’s mission, ensuring quality in construction and/or renovation of facilities in relation to supporting the University’s instructional, research and service program needs, and the ongoing adequacy of the University’s physical resources.

As noted earlier in this narrative, the Campus Master Plan is used as the broad framework from which capital and facilities planning decisions are made; however, in order to be responsive to opportunities, circumstances, and constituency needs and demands, the University must constantly assess its environment and be adaptable to changing conditions. To that end, standing tri-weekly meetings (Capital Projects Meetings) are convened between the President, Provost, Vice President for Financial Affairs and Treasurer, Associate Vice President for Financial Affairs, Assistant Vice President for Construction Administration, Assistant Vice President for Facilities and Grounds, and the University Planner and Designer. The purpose of these meetings is to routinely bring to the table key administrative-level perspectives to assess, monitor, and determine course of action for both current and long term issues applicable to academics, physical resources and financing. These meetings serve as one avenue in which academic needs and concerns related to physical resources are addressed as a result of routine communications between the Deans and the Provost. Sample agendas are provided. [38]
Initiation, development and construction of facilities projects are managed by the University’s Construction Administration Department. In order for a new construction project to be initiated, users are directed to an online helpdesk for instructions on completion and submission of the online Project Initiation Request. Baseline information such as a department contact information, description of the work, function of the space, disability access needs, and special requirements applicable to electrical, fire, security, plumbing, or hazardous materials is captured on this form. Additionally, the online form incorporates workflow approval paths based on the division in which the request is initiated. For an academic area, the required approvals for new construction would include the Dean, Associate Provost, and Associate Vice President for Financial Affairs prior to submission to the Construction Administration Department. Corresponding Project Approval Forms are also generated online. Copies of a completed Project Initiation Request and associated Project Approval Form are provided as examples.

Further, Construction Administration established Design Guidelines (DG) to help facilitate the level of quality, standardize the construction details, and minimize variation between projects. The DG are general guidelines for conducting the work of architects, engineers and any other design consultants or contractors involved in planning, design, and construction of any aspect of the grounds, utilities, renovations, or new facilities on the main campus of the University. The Design Guidelines are available on the Construction website.

The University’s Policy for Establishing and Expending Construction Project Budgets establishes guidelines to be followed for construction projects. The University defines capital projects as new construction, additions and renovations that will improve existing facilities, infrastructure and land improvement projects, such as: road projects, storm water drainage, utility projects, parking lots, and decks. In some cases, equipment purchases may also be considered capital projects. This policy is applicable to projects funded by: University bonds, Public School and College Authority (PSCA) or state provided bonds, gifts, deferred maintenance funds, plant funds, and reserve funds.

A flowchart is provided to delineate the approved business process for initiation, planning, programming and design of construction projects. These business processes incorporate numerous assessments and activities to ensure the facilities’ end product is of high quality, in accordance with the University’s Campus Master Plan, and ultimately satisfies the need of the end user. Specifically, it is during the planning through design phases where the University actively seeks, incorporates, and documents input from the stakeholders, i.e. facilities end users or proposed end users. Construction Administration assembles user groups at the initiation of the project and consistently communicates with this group throughout milestones associated with the project. Excerpts of the programming meeting agendas and information gathering/analyses documents related to construction of the Science and Engineering Complex-Phase IV are provided as an example. Phase IV of this construction project was concentrated on specific areas of research. As the documentation will support, there were numerous meetings held with the end-user faculty to ensure that the facilities were designed and programmed to fulfill the specified research initiatives in a quality manner. This process is followed with every new construction project initiated.

Such information (along with all other project detail) is maintained on an individual project basis on a Microsoft SharePoint site, which is a Web application platform, used to provide intranet portals and manage documents and files. A screenshot of this site is provided. Access to the site is limited to University-approved employees and those non-University individuals with authorized access.

Strategic Planning

Ongoing adequacy of facilities cannot be assured without strategic planning on the part of the Board of Trustees and University administrators. Evidence to support such efforts is contained in several Board of Trustees’ required annual plan submissions, as well as internal reports summarizing the Division of Financial Affairs’ anticipated needs for the Division and the University as a whole in order to continue functionality, expansion, and improvement of the learning environment for the students, faculty and staff.
These plan documents contain critical information directed to the Board and/or University administrators demonstrating linkage of facilities and capital planning efforts to the University’s mission and strategic goals. More importantly, it is the preceding efforts prior to submission of these plans that are essential. Development of the plan documents is the culmination of the functions, business processes, discussion, and analysis that occur as a result of the collaboration between the professionals within Construction Administration, Facilities and Grounds, and University Planning, as well as input from Academics and Student Affairs. These efforts ensure adherence to guiding principles. A summary of the planning documents used to ensure ongoing adequacy of facilities follows:

Board Rule 415, Section III. C. requires the Annual Capital Development Plan (ACDP). The Plan includes a list of prioritized capital projects presented in the context of the campus’ annual planning and budgeting process, and outlines how these projects relate to and enhance the University’s programs. The projects are classified by capital category and includes a brief description of the project’s scope; preliminary cost estimates for construction/acquisition; projected annual cost for operations and maintenance of the planned space; and anticipated funding sources for the initial capital outlay and the ongoing operating costs, The ACDP for proposed new projects.

Board Rule 415, Section III. B. requires the Five-Year Facilities Development Plan. This plan proposes a list of projects to be completed within a two to five-year period along with the projected cost of each, and grouped by capital category. This Plan represents the University’s long-term commitment and recognition of the need to maintain resources in an adequate and appropriate condition to provide the services and programs integral to the University’s mission and that are reflective of the cyclical life of facilities and their components.

University officials consider several factors relative to the facility and the programs contained therein, before deciding to include the project on the list. These factors include, but are not limited to: code issues, condition of technology, efficiency and condition of building systems, general appearance, program accreditation requirements and standards, and how these factors overall support an environment conducive to teaching, learning and executing the University’s mission.

A quality-improvement and assurance-based system serves as the cornerstone for maintaining the University’s physical resources and is utilized to assess the buildings through observation of the facility during operational hours and to determine programmatic need through engagement with stakeholders. Specifically, this system includes the following:

- Observation with respect to public flow and access as well as general utilization of the facility
- Discussion with facility users
- Analysis with emphasis on service life, status and review of work orders
- Benchmarking via peer and accreditation reviews, literature searches, and inspections

The establishment of this list also provides the University a framework to schedule projects to be executed in the most efficient manner and at a time that has a minimal impact on the campus community. The projects are classified by capital category and include a brief description of the project’s scope; preliminary cost estimates for construction/acquisition; projected annual cost for operations and maintenance of the planned space; and anticipated funding sources for the initial capital outlay and the ongoing operating costs. The University prepared an accompanying spreadsheet highlighting some of the projects included within the 2013 Five-Year Facilities Report and summarized the proposed programmatic and quality enhancements on each of the new or renovated facilities.
Also, in accordance with Board Rule 415, Section III.C., a Deferred Maintenance Policy [50] and the University’s Deferred Maintenance Policy [49] are prepared annually on a five-year period. The DMP also supports the University’s ongoing effort to ensure the quality and adequacy of its facilities with focal points to upgrade all buildings to current life safety standards and ensure environmentally stable exterior conditions and interior environments. Representatives from Construction Administration, Facilities and Grounds and Planning and Design meet bi-weekly to access and prioritize deferred maintenance of the Education and General funded items, along with various other issues pertinent to planning, construction and maintenance of facilities and grounds. [51] After obtaining necessary University approvals, the Annual Capital Development, Five-Year Facilities Capital Development, and the Deferred Maintenance Plans are consolidated into one report, i.e., Annual Consolidated Capital Projects and Facilities Report (ACCPFPR). [52] Additionally, as the individual projects progress, the Board requires intermittent stage approvals. The required stage approvals are designed to ensure ongoing compliance with the Campus Master Plan and budget availability, and include design reviews for visual impact and scope intent as the project evolves.

The ACCPFR is submitted annually in June for the Board of Trustees’ initial review and consideration. The report is placed on the September agenda each year for Board of Trustees’ approval of any stage I (pre-planning program statement, budget, and other planning information) new construction projects included in the ACCPFR. The Physical Properties Committee reviews proposed projects in terms of: general conformance with the Campus Master Plan; review of project scope, campus priority and impact on reducing deferred maintenance/facility renewal liabilities; the appropriateness of proposed construction costs (per building square foot); and projected annual and five-year operations and maintenance costs for the planned space. The Finance Committee reviews the long-term debt structure of each campus in conjunction with the proposed ACDP and determines if the funding proposed for projects in the ACDP is consistent with prudent financial planning and within the financial capabilities of each campus within the Alabama System. Additional information included in the ACCPFR, relevant to planning, programs, and enrollment implications, includes data detailed within the Board of Trustees’ Oversight section of this narrative. Documentation from the Board of Trustees’ Physical Properties Committee is provided to support submission of the 2013 ACCPFR to the Board of Trustees for review as well as the Board’s official approval (applicable to Stage I construction projects included therein) is provided. [53]

The Growth Plan - Accommodating Potential Enrollment Growth [54] is developed to communicate a framework for the Division of Financial Affairs to meet and support the dynamics of a growing campus and to recognize the challenges and opportunities. This report is updated periodically and distributed to University administration. In anticipation of the University’s continued growth and as necessary for efficient management of its operations, staff proactively address plans to meet defined and projected campus needs across all areas within the Financial Affairs Division, including operation and maintenance of facilities, construction administration, planning, public safety, finance, ancillary services, human resources, auxiliary services and other business activities. The Management and Growth Plan for Utilities and Infrastructure (U&I) [55] is focused on identifying these needs relative to the utilities and infrastructure systems of the campus including electrical distribution, sanitary sewer, storm sewer, thermal energy, energy management (including steam), natural gas and potable water, and the campus road work. The issues and projects addressed are carefully coordinated through the structure and principles provided by the Campus Master Plan and an integrated evaluation model to ensure the most effective execution and to eliminate any potential rework. Plan development is a direct result of the collaboration of the staff in Construction Administration, University Planning and Design, and Facilities and Grounds along with input from the Office of Academic Affairs and Student Affairs. The U&I was updated in 2013 to reflect work accomplished in accordance with the previous plan, the impact of projects that are in planning and development (both short and long term), programmatic considerations, technology changes, emerging opportunities, strategic partner dynamics, funding, and, most importantly for the last update, the impact of the acquisition of Peter Bryce Campus.

The U&I also summarizes current status and provides recommendations for improvement to all major systems in an effort to avoid any disruption in service or negative impact. The U&I covers the electrical distribution, sanitary sewer, storm sewer, thermal energy, energy management (including steam), natural gas, portable water, campus transportation, and pedestrian enhancements. Each system identifies projects required for expansion as the Campus Master Plan and the Administration direct overall growth of the campus. The U&I also identifies the time frames and costs associated with the projects. These projects are then incorporated into the ACDP and/or the DMP.
Facility needs in relation to academic programs are also scrutinized during the University’s process for consideration of a new academic program. The process is initiated on campus and culminates with approval by the Alabama Commission on Higher Education (ACHE) and the University’s Board of Trustees. The process is detailed in the narrative for Comprehensive Standard 3.2.6. An example of the documentation submitted through ACHE to the Board of Trustees Academic Affairs, Student Affairs & Planning Committee referencing facility needs in relation to the academic program is provided.

**Board of Trustees’ Oversight**

The Board of Trustees of The University of Alabama (BOT) governs the University. The Board of Trustees’ Bylaws [57] Article I, Section 6 [58] define its primary functions, some of which include approval of:

- Campus master plans, facilities development programs, and capital development programs
- Purchases of sales and real property
- Convey rights-of-way or easements for utilities that serve University facilities, programs, or activities after review by the General Counsel and authorization from the Chancellor
- Architects, engineers, and project managers, preliminary and final budgets, and award of construction contracts for certain capital projects, as well as the acquisition of new equipment and computer software and all land

Additionally, BOT Bylaws, Article IV. - Committees, provides for the formation of a standing committee designated as the Physical Properties Committee. [59] Board Manual, Rule 415, A. [60] stipulates that the Physical Properties Committee is responsible for review and recommendations to the Board, actions associated with capital planning, project planning, design and construction and preservation of capital assets. Submission of the various required stage approvals to the Board of Trustees requires that the project need and subsequent analysis and research conducted to bring forth such a request be summarized in writing. Information required via submission of various forms includes identification and submission of the following:

- Stage approval and/or if a budget reallocation, as well as reference to previous Board approvals
- Project type, i.e. renovation, addition, new construction, campus infrastructure, equipment or other; space category, i.e. instructional, auxiliaries, fraternity, patient care, support, or intercollegiate athletics; percentage allocation of project type and space category; and gross square footage
- Project description that includes justification for the need and scope of the project, which may include results of surveys from University constituencies, such as students, faculty, etc., reference to peer standings, industry standards, etc.
- Budget
- Annual operating and maintenance (O&M) costs for initial occupancy year and projection for succeeding five-year period
- Funding source
- Deferred maintenance/facilities renewable liabilities cost savings and percentage of reduction to the campus
- New equipment requirements, if applicable
- Other alternatives considered in the planning process for the project
- Project impact, i.e. relationship to existing academic programs and/or services, enhancements to existing or new campus programs, impact to undergraduate and graduate enrollments, and relationships to other campus programs
- Immediate impact on campus programs and enrollment if project is not approved
• Space inventory impact (increase/decrease/renovate) and if project is replacing existing space inventory, proposed use of any vacated space created as a result of project completion; classification of new space created as a result of project, i.e. if instructional space, identification of specific type of instructional space - seminar rooms, classrooms, lecture, or laboratories, along with identification of the number of units created and anticipated capacity, along with corresponding gross square footage, if office/support - faculty, administration, research, or other; and other classifications of space include campus recreation, intercollegiate athletics, libraries, residence halls, performing/arts, special labs, research labs and other

A memorandum from the University’s Vice President for Financial Affairs to the President accompanies Board submittal requests, along with the above noted information, certifying that the project is consistent with the University’s master plan, design standards, and other principles referenced within the documentation. In addition, construction project requests require submission of a business plan and location map. These requirements serve as evidence of the University’s efforts to ensure that the proposed acquisition and/or construction/renovation project is ultimately in accordance with the University’s mission, strategic goals and/or campus master plan, as well as the Board’s subsequent consideration of these issues. Documentation to specifically support the above-noted requirements is provided in submission and approval of a stage 1 new construction request. [61] Also, excerpts including minutes from two Board of Trustees’ committee meetings are provided as examples of the Board’s approval of an acquisition of property and all of the required stage approvals for a construction project. [62] [63]

External Resource Assessment

Another resource used by University administration to ensure adequacy of its facilities is to seek third-party feedback and objective analysis applicable to status of current operations as well as for planning purposes. Following are examples of such applicable to classroom usage and other accrediting bodies that use adequacy of physical resources as a standard:

Classroom/Instructional Space

The University understands that it is critical to measure and analyze enrollment capacity and resource allocation to ensure that its classroom resources are adequate and are being maximized in use. This analysis is accomplished via reports generated from Ad Astra Information Systems’ instructional space scheduling software that the University implemented in 2006. The Office of the University Registrar (reporting to the Office of Academic Affairs) is responsible for monitoring the data generated and distributing reports, upon request, to the Vice Provost for Academic Affairs who in turn disseminates the information to the appropriate parties at the college/school and department levels.

Ad Astra concluded its most recent strategic check-up using fall 2013 data. The PowerPoint presentation summarizing the process and results from the study is provided. [64] This study is a comparison of The University of Alabama to designated peer universities who also use Ad Astra software. Following are key findings from the study:

• Regarding the enrollment ratio, (comparison of actual course enrollment to maximum course enrollment capacity), the University is in the 93rd percentile compared to its peers. This indicates that the University is accurately projecting its course enrollment numbers.

• The University is effectively assigning the number of sections offered per course, and the maximum capacity of those sections. Of courses that had 11 or more sections (English 101, Math 100, etc.), these sections had an enrollment ratio of 96%. Courses that offered only one section had an enrollment ratio of 82%.

• The University’s auditorium/classroom actual seat fill ratio (number of students who registered for the course versus the capacity number of seats available in the room) is in the 88th percentile compared to its peers.

• While auditorium and classroom actual utilization is at 81% capacity during the University’s prime time, there is available capacity to schedule courses beyond prime time.
The University is in the 49th percentile compared to its peers applicable to standard meeting patterns. The University’s standard meeting pattern for classrooms and auditoriums is Monday through Thursday, 9:00 a.m. to 3:00 p.m.; however, many sections are scheduled during a non-standard off-grid meeting pattern. For example, a Monday-only class may meet from 9:00 a.m. to 10:50 a.m., rather than a standard Monday, Wednesday, Friday 50-minute class. This leads to greater availability of classroom and auditorium space on Wednesdays and Fridays.

While the University has experienced unprecedented enrollment growth, the results of the Ad Astra study indicate that the University has adequate resources and is efficiently allocating its existing resources in comparison to its designated peer universities. Conversely, the results also identify opportunities for the University to develop scheduling strategies and policies to ensure optimum resource allocation. To that end, University Administration approved the licensing of WEN, which is a product offered by Leepfrog Technologies. The University currently uses CourseLeaf Solutions’ Catalog Management System and Course Inventory System. WEN is the third product in the CourseLeaf Suite that will be used in the creation, verification, and publication of class schedules. It allows for front-end enforcement of scheduling policies, creates approval workflows through which exceptions to scheduling policies are managed, and through a customization to the software provides SACS regulation enforcement applicable to the physical address requirement for off-campus courses. The University currently requires that a physical address be provided if the class is offered off-campus; however, this technology affords the University a system control to prevent users from being able to finalize off-campus courses within the software unless the physical address is entered. Additionally, this customization will prompt a workflow that will require additional University approvals for off-campus course offerings.

The licensing of this software used in conjunction with other CourseLeaf Suite products and Ad Astra’s room scheduling capabilities is the first step in a strategic proposal to optimize allocation of the University’s instructional space. In the spring 2014, a presentation was made to the President, Provost and Deans outlining the complete scheduling proposal. A copy of the presentation is provided.

Facilities

The University of Alabama contracts with Sightlines, LLC. to obtain independent analysis of its campus facilities. The results of Sightlines’ April 10, 2014 FY 2013 Facilities Measurement, Benchmarking and Analysis Presentation are provided in the narrative for Comprehensive Standard 3.11.3, however, one of the core issues identified in the analysis correlates directly to adequacy and quality of facilities. Almost 70% of the University’s Education and General (E&G) funded space has been fully renovated or newly constructed in the last 25 years shifting the campus to a younger age profile over its peers.

Other Accrediting Entities

The University of Alabama has a large number of programs with national accreditations, all of which consider the adequacy of facilities in their determinations. Following are a few examples of the current University-accredited programs that have a standard linking to adequacy of physical resources:

- American Psychological Association (APA) [68]
- American Library Association (ALA) [69]
- Accreditation Board for Engineering and Technology (ABET) [70]
- Commission on Collegiate Nursing Education (CCNE) [71]
- National Association of Schools of Music (NASM) [72]
Other Comparative Data

Comparative data is also a useful tool for gauging adequacy of physical resources. The Alabama Commission on Higher Education (ACHE) prepares a Facilities Inventory and Space Category Report that provides a comparison of Alabama Public Colleges and Universities’ facilities and space data. Excerpts of the Fall 2013 report are provided. As expected, The University of Alabama’s profile data applicable to the number of full-time equivalent students in relation to net assignable square footage is reflective of being the largest public institution in the state. The University also monitors other institutions outside of the state for comparative purposes. The University compiled the enclosed broad benchmark comparison that reflects the University’s standings with selected universities. In regards to physical resources type measurements, based on enrollment, the University is comparable to the peer institutions selected.

Construction Highlights

Enclosed are summary documents highlighting examples of the University’s new construction and renovations along with before and after pictures for the last five years. Also incorporated within each of the attachments is a summary of the programmatic and quality enhancements on a new or renovated facility basis. These academic or programmatic-related enhancements are a direct outcome of communication between University administrators, collaboration between departments, and design and programmatic input from the facility end-users detailed earlier in the narrative. The information provided illustrates the University’s effort to ensure the physical environment supports its mission emphasis of providing quality programs of teaching, research and service.

Also provided is a summary of the University’s construction-in-progress projects that have received at least Board of Trustees’ stage I approval, as defined in Board Rule 415 – Attachment A. These projects include classroom/academic space, dining, parking, and student recreational facilities. All of the construction projects completed to-date or that are noted as in-progress were subjected to and filtered through the framework and corresponding business processes and analysis detailed in this narrative.

Distance Learning

The University extends its outreach beyond its brick and mortar confines through non-traditional formats of learning such as distance learning formats including online, videoconference, and evening and weekend class offerings. The College of Continuing Studies, in conjunction with primary support services provided by the Office for Information Technology and the Center for Instructional Technology (CIT), is responsible for the University’s distance learning program.

The College of Continuing Studies, Instructional Technology and Faculty Services Department, is responsible for handling support issues related to online course design and usage. The primary distance education platform is provided by Blackboard, Inc., with its infrastructure managed and maintained by Blackboard. On-site support for Blackboard, Inc. as well as other tools that support the University’s distance learning program is provided by CIT.

CIT solicits feedback regarding technology services through several means including facilitating several group forums for the discussion of technology issues and the dissemination of technology-related plans and information. These forums meet on a regular basis and include input from faculty, staff, and students. Student feedback currently filters through monthly meetings with college-level stakeholders. Comments are also invited through the organizational Web pages, through general campus publications, and through occasional surveys. A summary of the feedback gained as a result of these forums is provided. The University’s distance learning offerings are addressed in detail in Comprehensive Standard 3.4.12, while technology infrastructure in general is addressed in the narrative for Comprehensive Standard 3.11.3.
Closing Statement

The University of Alabama has adequate physical resources to support its mission and the scope of its programs and services. This assurance is demonstrated through the University’s application of an established integrated framework that includes a comprehensive Campus Master Plan that links to the University’s mission and strategic goals and was updated to specifically address expanding the campus and readying it adequately for a student enrollment of 35,000; a Campus Design Guide that serves as an implementation tool to translate the Campus Master Plan to approved processes for the design, review and approval of projects; the culmination of collaborative functions and analyses by key University divisions; input from facility stakeholders; integrated, continuous strategic planning; Board of Trustees’ oversight, assessment and evaluation by external, objective parties, and an effective Distance Learning program.

Supporting Documents

1. Excerpt from Board Manual-Board Rule 412, Section II (PDF)
2. Summary of Federal Land Grant Endowment Funds (PDF)
3. Building Inventory-July 18, 2014 (PDF)
4. Summary University Leased Space (PDF)
5. Campus Map (PDF)
6. web tour of the campus facilities (PDF)
7. Birmingham-Samford University-Pictures (a) (PDF)
8. Birmingham-Samford University-Pictures (b) (PDF)
9. Doctor of Education (UNA Campus) (PDF)
10. Florence-University of North Alabama-Pictures (a) (PDF)
11. Florence-University of North Alabama-Pictures (b) (PDF)
12. Gadsden Center (PDF)
13. Intercampus Interactive Telepresence System (IITS) (PDF)
14. Gadsden-Gadsden Center Information (PDF)
15. Moundville Archaeological Park (PDF)
16. The University of Alabama Museums (PDF)
17. Kentuck Museum Association Lease Agreement (PDF)
18. UA gross square footage table (PDF)
19. Sightlines Excerpt-Campus Age Profile (PDF)
20. UA Classroom and Class Lab Utilization Reports (PDF)
21. Campus Master Plan (PDF)
22. Campus Master Plan-Guiding Principles (PDF)
23. Campus Master Plan-Survey and Presentation (PDF)
24. Campus Master Plan Committee (PDF)
25. Campus Master Plan-Meeting Minutes (PDF)
26. Board Rule 415, Section III.A. (PDF)
27. Campus Master Plan-BoT Approval_November 2007 (PDF)
28. Campus Master Plan-BoT Approvals_Updates and Amendment_November 2012 (PDF)
29. Campus Design Guide (PDF)
30. University Planning (PDF)
31. Construction Administration (PDF)
32. Facilities and Grounds Operations (PDF)
33. Administrative Services (PDF)
34. Division of Student Affairs (PDF)
35. Housing & Residential Communities (PDF)
36. Office of Academic Affairs (PDF)
37. University Registrar (PDF)
38. Sample Agendas-Capital Projects Meetings (PDF)
39. OnlineProject Initiation Request (PDF)
40. Project Initiation Request-Project Approval Forms (PDF)
41. Design Guidelines (PDF)
42. Policy for Establishing and Expending Construction Project Budgets (PDF)
43. Construction Administration Design Business Process Flowchart (PDF)
44. Excerpts from Program Meeting Agendas-Science and Engineering Complex Phase IV (PDF)
45. Screenshot SharePoint Site-Construction Project Information (PDF)
46. Board Rule 415, Section III. C. (ACDP) (PDF)
47. Board Rule 415, Section III. B. (Five-Year Facilities Development Plan) (PDF)
48. Summary-Highlights of Five-Year Facilities Development Plan (PDF)
49. Board Rule 415, Section III. C. (Deferred Maintenance Plan) (PDF)
50. Deferred Maintenance Policy (PDF)
51. Construction_Facilities_Planning Executive Leadership Meeting Minutes (PDF)
52. Annual Consolidated Capital Projects and Facilities Report (ACCPFR) (PDF)
53. Board Physical Properties Committee Submission and Approval_ACCPFr_June and September 2013 (PDF)
54. Growth Plan-Accommodating Potential Enrollment Growth (PDF)
55. Management and Growth Plan for Utilities and Infrastructure (U&I) (PDF)